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BACKUP PLAN FOR CENTRAL REGION OFFICES

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SUMMARY OF REVISIONS: This supplement supercedes Regional Operations Manual Letter (ROML) C-05-02, "Backup Operation, filed with WSOM Chapters J-03, dated June 15, 2002; ROML C-18-99, "River Forecast Center Service Backup", filed with WSOM Chapter J-03, dated September 15, 1999.

(Signed by) April 8, 2004
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1. Purpose. National Weather Service (NWS) field offices provide forecast and warning services to a variety of users. This Supplement provides a backup plan with detailed instructions for Central Region (CR) offices when they cannot provide those services.

2. Responsibilities.

2.1 Weather Forecast Offices (WFO). The goal for service backup in Central Region is WFO-to-WFO backup for the provision of all products and services. That is, when a WFO can not provide its suite of products and services, a single WFO will provide that entire set of products and services, if possible, while serving as either the primary or secondary service backup office. Provision of services while operating in a backup role is predicated by priority. The priority of product and service provision is defined in NWSI 10–2201.

WFOs are encouraged to develop and maintain an intranet site which contains all resources required for service backup.

Tables detailing primary and secondary backup responsibility are outlined Appendix A.

2.1.1 WFO Responsibilities When a Servicing River Forecast Center (RFC) Requires Service Backup. While the servicing RFC establishes service backup, each affected CR WFO should have the capability to provide critical hydrological services without RFC river forecasts (RVF) and flash flood guidance (FFG and related digital guidance) within the first 24 hours of a RFC failure (Ref. NWSI 10-2201). Essential services include issuing hydrologic watches, warnings, and statements.

2.1.2 ASOS and Upper Air. A WFO providing service backup will provide ASOS observation monitoring and quality control as described in NWSI 10-1305.

ASOS and the Upper Air systems automatically connect and/or can be dialed manually to transmit the observations per a network configuration plan including redundant dial backup. This network configuration plan is not a part of this Supplement. If the primary and backup automated communication systems fail and/or manual observations are generated, the responsible WFO will:

> (1) attempt to manually transmit the observation via AWIPS; or (2) work with the service backup WFO responsible for data acquisition to ensure the observations are manually transmitted in a timely manner. A network communication table for both systems can be found on the Central Region Intranet in the "Program Information Section".

2.2 Center Weather Service Units (CWSUs). Service backup of CR CWSU Operations will be in accordance with section 7.12, and associated Appendix B, of NWSI 10-803, January 1, 2004, "Support to Air Traffic Control Facilities"

2.3. River Forecast Centers. RFCs will develop procedures and maintain the capability of continuing core operations off-site in the event their current facility becomes uninhabitable (e.g. fire, etc.). These off-site backup operations should utilize modernized RFC systems as much as possible. The location of each RFC's off-site backup will be determined by the availability of computer resources, access to data, and ability to disseminate products. Each RFC will also maintain a procedure to continue core operations on-site in the event of a major systems failure (e.g. loss of AWIPS). Core operations are defined as those essential to produce all products and services needed to protect lives and property.

If the RFC failure is expected to last beyond 24 hours, operations should be relocated to the off-site location. Off-site operations will require RFC personnel to TDY to the new location to implement procedures and issue forecasts. If the RFC failure occurs during a high water situation, the RFC may place staff at affected WFOs to assist handling the event.

3. Operations. Planned service backup operations will be coordinated in advance by the office requesting backup. A courtesy copy of the request will be sent to Central Region, attention Services Division. Services Division notification should be accomplished during "normal" working hours via electronic mail (cr.services@noaa.gov).

However, the following are a few examples which may prompt immediate implementation of service backup:

- Emergency evacuations
- Site communications or power failure
- Critical equipment failure

During particularly significant severe weather scenarios, WFOs should consider "off-loading" partial forecast responsibility to primary or secondary backup WFOs in order to allocate resources to warning operations.

Designated service backup offices listed in Appendix A will provide forecast and warning services until normal office operations at the affected office are restored.

Offices providing backup will provide services consistent with normal operations. During backup operations, additional personnel may be required. Approved temporary duty at the backup office is another available option to alleviate the increased workload.

4. Aid and Support. Written instructions cannot cover every situation. Personnel must use judgement and initiative, evaluating situations on a case by case basis to ensure continuation of essential services. The first obligation of personnel in a disabled office is to support restoration of operations. Beyond that, they will provide support to assist offices providing backup services as much as possible. This may include obtaining data sets via alternative methods, providing draft products, soliciting and relaying real-time ground truth severe weather reports, etc.

The RFC's Hydrometeorological Analysis and Support (HAS) function will be responsible for ensuring the WFOs performing Hydrological Service Area (HSA) backup are aware of all available RFC products and guidance pertaining to the HSA they are supporting. This includes QPF, river forecast guidance, and flash flood guidance. Coordination between the RFC and the WFOs performing HSA backup should be accomplished using HMD and HCM messages, collaboration tools, or telephone conversations.

5. Verification. Real-time verification of warnings and dissemination of damage reports is considered part of the backup process, and falls under the responsibility of the offices providing backup warning services.

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6. Procedures. An office requiring backup will contact its primary or secondary backup office dependent on weather demands and workload requirements. Dependent on communication capabilities of the requesting office, the designated service backup office may be responsible for notification of the servicing RFCs, surrounding WFOs. Central Region Services

Division will be contacted via the CR answering service (Ref. CR Supplement filed with NWSI 10-1603).

Service Backup notification should be posted to AWIPS using the ID CRHADMCRH addressed to ALL. The message will identify all involved backup offices, contain notice that an office has become disabled, and request affected backup offices initiate backup services. Other pertinent and factual information should be included, such as the reason for the outage, contact information (e.g., cell phone) , expected time of return to normal operations, etc.

Once normal operations have been restored, the office which required backup will issue a CRHADMCRH message advising backup offices that it is resuming normal operations. It is recommended that the office which required backup follow-up the notification with a telephone call.

7. Dissemination**.** Offices will follow procedures in NWSI 10-1701 regarding formatting procedures in the Mass Media Headers.

8. Readiness**.** Offices will maintain all instructions related to service backup. Offices will maintain lists and contacts for emergency management, SkyWarn, and Cooperative Observers. All offices should also be familiar with their backup office's operational programs, SmartTools, and text formatters.

It is the responsibility of each office to ensure that its backup offices have been provided all necessary items, as outlined above, to accomplish backup successfully.

9. NOAA Weather Wire Service (NWWS)**.** NWWS products originate from all NWS WFOs and RFCs utilizing the Advanced Weather Information Processing System (AWIPS). Products are redundantly sent to multiple RFC offices for uplink to a communications satellite. A map of Primary and Secondary uplink assignments for all WFOs is located at http://www.nws.noaa.gov/nwws/poster01.pdf.

Appendix A - Service Backup Assignments

WFO	1st Backup	2nd Backup
ABR	FSD	BIS %
APX	MQT	DTX
ARX	DMX	DVN
BIS	FGF	ABR
CYS	RIW	UNR
DDC	GLD	ICT
DEN (BOU)	PUB	GJT
DLH	MPX	FGF
DMX	DVN	OAX
DTX	GRR	APX
DVN	ARX	DMX
EAX	SGF	TOP
FGF	BIS	DLH
FSD	ABR	MPX %
GID	OAX	LBF
GJT	SLC	BOU
GLD	DDC	PUB
GRB	MKX	MQT
GRR	DTX	IWX
ICT	TOP	DDC
ILX	LOT	LSX
IND	IWX	LMK
IWX	IND	GRR
JKL	ILN &, RLX &, LMK &	RLX &, ILN &, LMK &
LBF	UNR	GID
LMK	PAH	IND
LOT	ILX *	MKX

LSX	EAX	ILX
MKX	GRB	LOT
MPX	DLH	ARX
MQT	APX	GRB @
OAX	GID	FSD
PAH	LMK	SGF
PUB	BOU	GLD
RIW	CYS	BYZ
SGF	LSX	PAH
TOP	ICT	EAX
UNR	LBF %	CYS %
ILN (ER)	JKL & IND &, LMK &	IND &, LMK &
RLX (ER)		JKL &
CLE (ER)	DTX &	
BYZ (WR)		RIW

* MKX responsible for GLF and Near Shore IFPS grids

@ GRB will collaborate with DLH for GLF and Near Shore IFPS grids

& Per Eastern Region Backup Plan

% South Dakota WFOs have access to the South Dakota State trunk radio system to facilitate backup communications.